Update Report User Manual

Introduction

The National Water and Climate Center **Update Report** is an analysis utility that produces reports with daily Snow Telemetry (SNOTEL) snow water equivalent (SWE) and precipitation values for 24 different geographic areas. You can request reports in six different display formats, allowing comparisons of the daily data against either the daily 30-year normals, the current or historical month-to-date values, the average monthly or annual totals, or against data from a different year. You can also select any date for a report.

Supported Browsers

The Update Report web application will run on any system installed with a Natural Resources Conservation Service supported web browser:

- Internet Explorer Version 5.x+

- Safari Version 1.0 (Macintosh)+

- Netscape Version 4.7x +

Update Report is compliant with Section 508 of the Workforce Rehabilitation Act.

Note: Update Report has been tested on browsers with JavaScript turned off. The web page has a slightly different look, but the application has the same functionality as browsers with JavaScript turned on.

Create an Update Report

The URL to the Update Report is:

www.wcc.nrcs.usda.gov/reports/SelectUpdateReport.html

To create an Update Report you specify:

1. A set of stations (either a state, a river basin, or a larger region)

2. A date for the daily data

3. A display format

4. An output format

5. For certain display formats, a year against which to compare the daily data

Report Selection Page
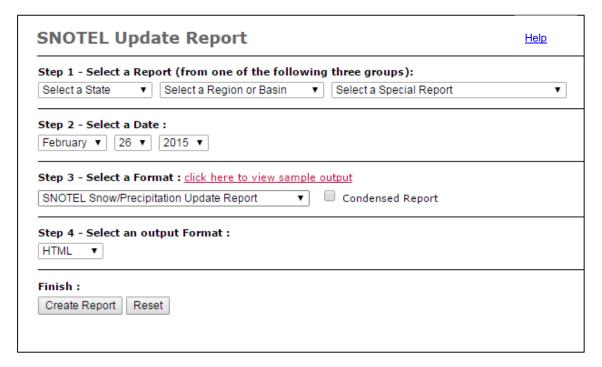
Figure 1 shows the Update Report selection page.

SNOTEL Update Report   Help

Step 1 - Select a Report (from one of the following three groups):
Select a State ▾   Select a Region or Basin ▾   Select a Special Report ▾

Step 2 - Select a Date :
February ▾   26 ▾   2015 ▾

Step 3 - Select a Format : click here to view sample output
SNOTEL Snow/Precipitation Update Report ▾   ☐ Condensed Report

Step 4 - Select an output Format :
HTML ▾

Finish :
Create Report   Reset

Figure 1. Update Report Selection page.

Step 1: Select a Geographic Area

The Update Report selection page allows you to choose from 24 different geographic areas, divided into three dropdown menus. The first menu contains state-based selections, which include SNOTEL stations within the selected state, and which may include SNOTEL stations in nearby states. The second menu contains river basins. The third menu contains geographic regions based on something other than state boundaries or river basin boundaries.

You may only select one report on one menu. If you choose a second report from a different menu, the first report will be unselected.

Note: The **Reset** button clears the contents of all the menus on the screen and returns them to the default selections.

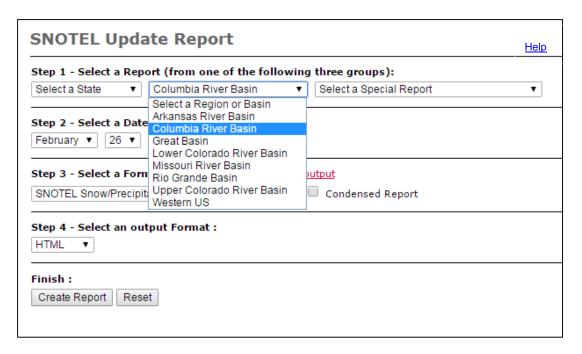Figure 2 shows selecting the Columbia River Basin for the report.

Figure 2. Selecting a report region.

Step 2: Select a Date

After choosing the region, choose a date for the data in the report. The current day is the default. Figure 3 shows changing the year displayed in the Update Report.
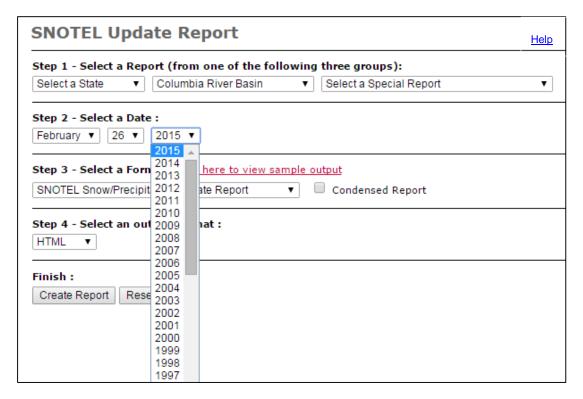

Figure 3. Selecting a year for the data.

There are two features in the Select a Date step:

- The year menu includes only years for which at least one SNOTEL station in the selected geographic region has data.
- The month and day menus only include months and days up to the current day when the current year is selected.

Step 3: Select a Display Format

The third step is to select the format to display the data. Update Report has six display formats. Figure 4 shows changing the display format for the report to "SNOTEL Precipitation Summary Update Report."
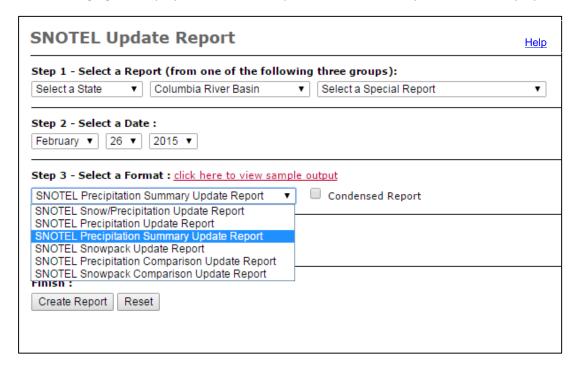

Figure 4. Selecting a display format.

Step 3 includes a click here to view sample output link with samples of the six data display formats. A portion of the Sample Output page is shown in Figure 5.

Each display format can be shown as a full report or a condensed report. The full report shows data for each station in the geographic area and summaries of the data for each region in the report. The condensed report shows only the summary data.

Figure 5. Sample output page.

Two display formats have additional requirements. "SNOTEL Precipitation Comparison Update Report" and "SNOTEL Snowpack Comparison Update Report" compare the daily data for the selected date to the data for a different user-chosen year. If either of these formats is chosen, a Step 5 section will display after Step 4. Figure 6 shows an Update Report selection page where the format "SNOTEL Snowpack Comparison Update Report" is chosen, and where Step 5 is displayed.

Figure 6. Screen with Comparison Date displayed.

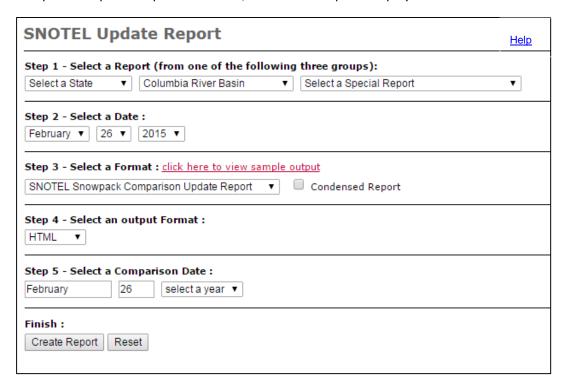Another feature of the comparison date selection is, while it allows you to select a different year to compare data against, it does not allow you to change the day of the year. Although the month and day are displayed, and in some browsers can actually be changed, they are displayed for reference purposes only. Update Report ignores them and gets the month and day for the comparison data from the month and day chosen in Step 2.

Step 4: Select an Output Format

Update Report allows you to output a report in three formats (see Figure 7):

- HTML. The report will be output to a web browser.
- CSV. The report will be output to an Excel spreadsheet in comma-separated value (CSV) format.
- Text. The report will be output to a web browser in ASCII text format. To save the output, right-click the file and perform a Save As... to save the file in a .txt format.

Simply select the format for the final report from the dropdown list.
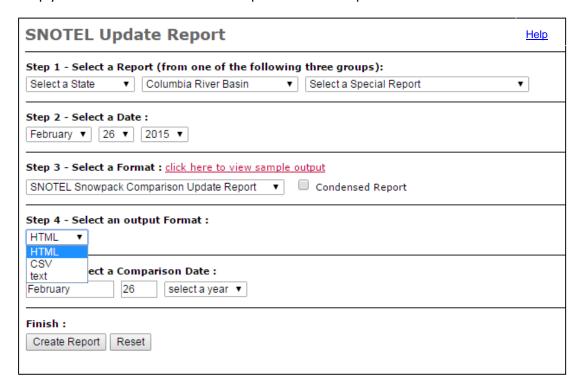

Figure 7. Selecting HTML as an output format.

Final Step: Create the Report

The last step in creating an Update Report is to retrieve the report from the database. To do this, click the **Create Report** button. The report will be output to the selected format.

Link Directly to Update Reports

The previous section described how to create an Update Report from the web interface. However, the same URLs can be created directly in the browser.

Follow these steps to create an Update Report without having to go through the selection, or if you want to create a link on one of your own web pages.

To create the link, you append some information to the basic Update Report URL. The basic URL is:

www.wcc.nrcs.usda.gov/reports/SelectUpdateReport.html

The following can be appended to the basic URL to specify the type of report. With the exception of the initial question mark, the order in which these parameters are appended does not matter.

1. A question mark (?). This must always be the first item after the basic URL.

2. An ampersand (&). If more than one of the following items are appended to the basic URL, they must each be separated by an ampersand.

3. (required) The word "report", followed by an equal sign (=), followed by a complete report name from one of the three pull-down menus in the Step 1 section of the Update Report selection page. If the report name includes spaces, you must change the spaces to plus signs (+). If the report name includes a slash (/), you must replace the slash with "%2F". This entry is case-sensitive, so be sure to enter the upper and lowercase letters exactly as they appear in the menu.

Note: The following three optional entries change the date of the daily data that is used in the report. For example, if you want to create a report for the first day of the current month, you only need to specify "day=1". And if you always want to produce a report for the current day, you should not specify any of them.

4. (optional) The word "month", followed by an equal sign, followed by a number from 1 through 12. Use this entry to change the month of the daily data in the report. If you do not append this entry to the basic URL, the report will use the current month.

5. (optional) The word "day", followed by an equal sign, followed by a number from 1 through 31. Use this entry to change the day-of-month of the date of the daily data. If you do not append this entry to the basic URL, the report uses the current day-of-month.

6. (optional) The word "year", followed by an equal sign, followed by a 4-digit year. Use this entry to change the year of the date of the daily data. If you do not append this entry to the basic URL, the report uses the current year.

7. (optional) The word "format", followed by an equal sign, followed by a complete format name from the dropdown menu in the Step 3 section. If the format name includes spaces, you must change the spaces to plus signs. If the report name includes a slash, you must replace the slash with "%2F". This entry is case-sensitive; enter the upper and lowercase

letters exactly as they appear in the menu. If you do not append this entry to the basic URL, the "SNOTEL Snow/Precipitation Update Report" display format is used.

8. (optional) The string "condensed=on". Append this to the basic URL to produce a condensed report instead of a full report (do not display data for the individual stations).

9. (optional) The string "comparison_year", followed by an equal sign, followed by a 4-digit year. This entry may be appended to the basic URL if you have chosen display format "SNOTEL Precipitation Comparison Update Report" or display format "SNOTEL Snowpack Comparison Update Report". For all other display formats it is not used, and if present, is ignored. If you do not append this entry to the basic URL, the report uses the year prior to the year specified for the daily data in the Update Report (see item 6).

10. (optional) The string "OutputFormatList", followed by an equal sign, followed by either CSV or text (note name of the option and the values for the option are case-sensitive). Use this option to request the output in CSV (comma-separated value) or plain text format.

Examples

Remember, when creating these links, everything after the question mark is case-sensitive.

The following link produces a report for the Colorado River Basin. Because only the report name is specified, the report will be for the current day, it will use the "SNOTEL Snow/Precipitation Update Report" display format, and it will produce a full report.

www.wcc.nrcs.usda.gov/reports/SelectUpdateReport.html?report=Colorado+River+Basin

The following link produces a report for the Colorado River Basin, again for the current day, but this time the display format is the "SNOTEL Snowpack Comparison Update Report". And, because this display format requires a date for comparison data, a comparison year is also specified (2014).

www.wcc.nrcs.usda.gov/reports/SelectUpdateReport.html?report=Colorado+River+Basin&format=SNOTEL+Snowpack+Comparison+Update+Report&comparison_year=2014

The next link produces the California/Nevada State report, for the date January 1, 2015. Notice that the slash in "California/Nevada" has been changed to "%2F".

www.wcc.nrcs.usda.gov/reports/SelectUpdateReport.html?report=California%2FNevada&month=1&day=1&year=2015

Update Report Output

Bookmarking Finished Update Reports

In a word, don't.

Feel free to bookmark the Update Report selection page. But do not try to bookmark a finished report because the bookmark will not do what you expect. Because Update Reports are created on demand rather than being stored on the NWCC web server, there is no actual report for the bookmark to connect to. Even though your browser will create a bookmark, you will get inconsistent results when you try to use it.

The inconsistent results are because the Update Report software remembers only the most recent report you have requested, and only for a short period.

If you wish to create a shortcut that will go directly to an Update Report and bypass the selection page, you should link to the report rather than trying to bookmark it. See "Link Directly to Update Reports" on page 7.

Sample Output

Following are samples for each of the six display formats. They are all for the Colorado River Basin, using data for February 4, 2004. The two display formats that compare the data for a different year use 2002 as the comparison year.

Colorado River Basin
SNOTEL Snow/Precipitation Update Report
Based on Mountain Data from NRCS SNOTEL Sites
Provisional data, subject to revision
Data based on the first reading of the day (typically 00:00) for Wednesday, February 04, 2004

Basin Site Name	Elev (ft)	Snow Water Equivalent			Year-to-Date Precipitation		
		Current (in)	Average (in)	Pct of Avg	Current (in)	Average (in)	Pct of Avg
UPPER GREEN RIVER BASIN							
STEEL CREEK PARK	10100	7.4	9.7	76	7.8	10.4	75
GUNSIGHT PASS	9820	8.1	N/A	*	7.8	N/A	*
HEWINTA	9500	-M	6.9	*	-M	9.5	*
INDIAN CREEK	9425	15.5	18.1	86	13.5	17.2	78
ELKHART PARK G.S.	9400	8.2	9.0	91	8.6	9.1	95
HICKERSON PARK	9100	3.4	4.6	74	5.6	5.3	106
HOLE-IN-ROCK	9150	4.2	4.3	98	4.6	4.9	94
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SANDSTONE RS	8150	8.3	10.0	83	14.1	12.8	110
EAST WILLOW CREEK	8250	5.6	5.1	110	6.4	7.3	88
CURRANT CREEK	8000	8.8	7.1	124	11.0	10.2	108
DANIELS-STRAWBERRY	8000	12.9	11.5	112	14.5	13.7	106
EAST RIM DIVIDE	7930	7.6	8.8	86	7.9	8.3	95
ROCK CREEK	7900	5.9	5.8	102	7.8	8.4	93
HAMS FORK	7840	7.7	8.6	90	6.8	8.6	79
KENDALL R.S.	7740	10.2	10.1	101	9.9	10.0	99
BATTLE MOUNTAIN	7440	10.9	8.0	136	10.8	10.1	107
Basin-wide percent of average				96			92

-M = Missing data.
 * = Analysis may not provide a valid measure of conditions.
N/A = No average available.

If the Basin wide percent of average value is flagged as potentially
invalid, care should be taken to evaluate if the value is representative
of conditions in the basin.

The SNOW WATER EQUIVALENT represents the depth of water in the snowpack, if the
snowpack were melted, expressed in inches.

The YEAR-TO-DATE PRECIPITATION Percent of Average represents the total precipitation

Colorado River Basin
SNOTEL Precipitation Update Report
Based on Mountain Data from NRCS SNOTEL Sites
Provisional data, subject to revision
Data based on the first reading of the day (typically 00:00) for Wednesday, February 04, 2004

Basin Site Name	Elev (ft)	Month-to-Date Precipitation			Year-to-Date Precipitation		
		Current (in)	Average (in)	Pct of Avg	Current (in)	Average (in)	Pct of Avg
UPPER GREEN RIVER BASIN							
STEEL CREEK PARK	10100	0.3	0.3	100	7.8	10.4	75
GUNSIGHT PASS	9820	0.1	N/A	*	7.8	N/A	*
HEWINTA	9500	-M	0.2	*	-M	9.5	*
INDIAN CREEK	9425	0.4	0.4	100	13.5	17.2	78
ELKHART PARK G.S.	9400	0.1	0.2	50	8.6	9.1	95
HICKERSON PARK	9100	0.5	0.1	500	5.6	5.3	106
HOLE-IN-ROCK	9150	0.3	0.1	300	4.6	4.9	94
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SANDSTONE RS	8150	0.3	0.3	100	14.1	12.0	118
EAST WILLOW CREEK	8250	0.2	0.2	100	6.4	7.3	88
CURRANT CREEK	8000	0.7	0.2	350	11.0	10.2	108
DANIELS-STRAWBERRY	8000	0.7	0.3	233	14.5	13.7	106
EAST RIM DIVIDE	7930	0.2	0.2	100	7.9	8.3	95
ROCK CREEK	7900	0.6	0.2	300	7.8	8.4	93
HAMS FORK	7840	0.2	0.2	100	6.8	8.6	79
KENDALL R.S.	7740	-M	0.3	*	9.9	10.0	99
BATTLE MOUNTAIN	7440	0.7	0.2	350	10.8	10.1	107
Basin-wide percent of average				**131**			**92**

-M = Missing data.
 *   = Analysis may not provide a valid measure of conditions.
N/A = No average available.

The MONTH-TO-DATE PRECIPITATION Percent of Average represents the total precipitation (beginning on the 1st day of the current month) found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day.

The YEAR-TO-DATE PRECIPITATION Percent of Average represents the total precipitation (beginning on October 1st) found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day.

Colorado River Basin SNOTEL Precipitation Summary Update Report Based on Mountain Data from NRCS SNOTEL Sites **Provisional data, subject to revision** Data based on the first reading of the day (typically 00:00) for Wednesday, February 04, 2004							
Basin Site Name	Elev (ft)	Month to Date Precipitation (in)	Average Monthly Total (in)	Pct of Monthly Total	Year to Date Precipitation (in)	Average Annual Total (in)	Pct of Annual Total
UPPER GREEN RIVER BASIN							
STEEL CREEK PARK	10100	0.3	2.8	11	7.8	30.9	25
GUNSIGHT PASS	9820	0.1	N/A	*	7.8	N/A	*
HEWINTA	9500	-M	2.3	*	-M	27.9	*
INDIAN CREEK	9425	0.4	4.3	9	13.5	38.2	35
ELKHART PARK G.S.	9400	0.1	2.0	5	8.6	26.4	33
HICKERSON PARK	9100	0.5	1.0	50	5.6	19.5	29
HOLE-IN-ROCK	9150	0.3	1.0	30	4.6	19.4	24
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SANDSTONE RS	8150	0.3	3.2	9	14.1	30.8	46
EAST WILLOW CREEK	8250	0.2	1.9	11	6.4	20.4	31
CURRANT CREEK	8000	0.7	2.6	27	11.0	23.5	47
DANIELS-STRAWBERRY	8000	0.7	3.8	18	14.5	31.4	46
EAST RIM DIVIDE	7930	0.2	2.1	10	7.9	21.3	37
ROCK CREEK	7900	0.6	2.5	24	7.8	23.7	33
HAMS FORK	7840	0.2	2.0	10	6.8	21.8	31
KENDALL R.S.	7740	-M	2.8	*	9.9	24.1	41
BATTLE MOUNTAIN	7440	0.7	2.4	29	10.8	25.4	43
Basin-wide percent of average				12			35

-M = Missing data.
 * = Analysis may not provide a valid measure of conditions.
N/A = No average available.

The % Monthly Total represents the precipitation accumulated from the 1st day of the current month through the current day found at selected SNOTEL sites in or near the basin compared to the average total precipitation for the current month for those sites.

The % Annual Total represents the precipitation accumulated from the start of the Water year (Oct 1) through the currente day found at selected SNOTEL sites in or near the basin compared to the average total precipitation for the entire water year for those sites.

Colorado River Basin SNOTEL Snowpack Update Report Based on Mountain Data from NRCS SNOTEL Sites **Provisional data, subject to revision** Data based on the first reading of the day (typically 00:00) for Wednesday, February 04, 2004							
Basin Site Name	Elev (ft)	Snow Water Equivalent				Percent of	
		Current (in)	Today's Average (in)	Avg Peak (in)	Avg Peak Date	Today's Average	Avg Peak
UPPER GREEN RIVER BASIN							
STEEL CREEK PARK	10100	7.4	9.7	18.9	May 07	76	39
GUNSIGHT PASS	9820	8.1	N/A	0.0	Oct 30	*	*
HEWINTA	9500	−M	6.9	12.5	Apr 09	*	*
INDIAN CREEK	9425	15.5	18.1	29.6	Apr 18	86	52
ELKHART PARK G.S.	9400	8.2	9.0	14.0	Apr 14	91	59
HICKERSON PARK	9100	3.4	4.6	8.4	Apr 12	74	40
HOLE IN ROCK	9150	4.2	4.3	7.5	Apr 10	98	56
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SANDSTONE RS	8150	8.3	10.0	15.0	Mar 27	83	55
EAST WILLOW CREEK	8250	5.6	5.1	8.5	Mar 26	110	66
CURRANT CREEK	8000	8.8	7.1	10.8	Mar 21	124	81
DANIELS-STRAWBERRY	8000	12.9	11.5	17.0	Apr 05	112	76
EAST RIM DIVIDE	7930	7.6	8.8	14.0	Apr 19	86	54
ROCK CREEK	7900	5.9	5.8	8.8	Mar 20	102	67
HAMS FORK	7840	7.7	8.6	12.5	Mar 22	90	62
KENDALL R.S.	7740	10.2	10.1	14.6	Mar 29	101	70
BATTLE MOUNTAIN	7440	10.9	8.0	11.5	Mar 22	136	95
Basin-wide percent of average						**96**	**58**

-M = Missing data.
 * = Analysis may not provide a valid measure of conditions.
N/A = No average available.

The Snow Water Equivalent PERCENT OF AVERAGE represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day.

The Snow Water Equivalent PERCENT OF MAXIMUM AVERAGE represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the

Colorado River Basin
SNOTEL Precipitation Comparison Update Report
Based on Mountain Data from NRCS SNOTEL Sites
Provisional data, subject to revision
Data based on the first reading of the day (typically 00:00) for Wednesday, February 04, 2004

Basin Site Name	Elev (ft)	Year-to-Date Precipitation			Current as Percent of 2002	Current as Percent of Average	2002 as Percent of Average
		Current (in)	2002 (in)	Average (in)			
UPPER GREEN RIVER BASIN							
STEEL CREEK PARK	10100	7.8	7.3	10.4	107	75	70
GUNSIGHT PASS	9820	7.8	8.9	N/A	88	*	*
HEWINTA	9500	-M	7.7	9.5	*	*	81
INDIAN CREEK	9425	13.5	13.2	17.2	102	78	77
ELKHART PARK G.S.	9400	8.6	7.9	9.1	109	95	87
HICKERSON PARK	9100	5.6	5.1	5.3	110	106	96
HOLE-IN-ROCK	9150	4.6	4.7	4.9	98	94	96

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SANDSTONE RS	8150	14.1	9.7	12.8	145	110	76
EAST WILLOW CREEK	8250	6.4	3.7	7.3	173	88	51
CURRANT CREEK	8000	11.0	7.8	10.2	141	108	76
DANIELS-STRAWBERRY	8000	14.5	11.3	13.7	128	106	82
EAST RIM DIVIDE	7930	7.9	7.7	8.3	103	95	93
ROCK CREEK	7900	7.8	6.0	8.4	130	93	71
HAMS FORK	7840	6.8	6.2	8.6	110	79	72
KENDALL R.S.	7740	9.9	9.0	10.0	110	99	90
BATTLE MOUNTAIN	7440	10.8	5.7	10.1	189	107	56
Basin-wide percent of average					**136**	**92**	**67**

-M = Missing data.
 *   = Analysis may not provide a valid measure of conditions.
N/A = No average available.

The YEAR-TO-DATE PRECIPITATION Percent of Average represents the total precipitation
(beginning on October 1st) found at selected SNOTEL sites in or near the basin
compared to the average value for those sites on this day.

Contact your state water supply staff for assistance.

Reference period for average conditions is 1971-2000.

Provisional data, subject to revision

Colorado River Basin SNOTEL Snowpack Comparison Update Report Based on Mountain Data from NRCS SNOTEL Sites **Provisional data, subject to revision** Data based on the first reading of the day (typically 00:00) for Wednesday, February 04, 2004							
Basin Site Name	Elev (ft)	Snow Water Equivalent			Current as Percent of 2002	Current as Percent of Average	2002 as Percent of Average
		Current (in)	2002 (in)	Average (in)			
UPPER GREEN RIVER BASIN							
STEEL CREEK PARK	10100	7.4	7.3	9.7	101	76	75
GUNSIGHT PASS	9820	8.1	8.8	N/A	92	*	*
HEWINTA	9500	-M	4.1	6.9	*	*	59
INDIAN CREEK	9425	15.5	14.8	18.1	105	86	82
ELKHART PARK G.S.	9400	8.2	7.3	9.0	112	91	81
HICKERSON PARK	9100	3.4	2.8	4.6	121	74	61
HOLE-IN-ROCK	9150	4.2	3.1	4.3	135	98	72
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SANDSTONE RS	8150	8.3	4.7	10.0	177	83	47
EAST WILLOW CREEK	8250	5.6	3.0	5.1	187	110	59
CURRANT CREEK	8000	8.8	3.2	7.1	275	124	45
DANIELS-STRAWBERRY	8000	12.9	6.9	11.5	187	112	60
EAST RIM DIVIDE	7930	7.6	6.3	8.8	121	86	72
ROCK CREEK	7900	5.9	3.5	5.8	169	102	60
HAMS FORK	7840	7.7	7.5	8.6	103	90	87
KENDALL R.S.	7740	10.2	7.0	10.1	146	101	69
BATTLE MOUNTAIN	7440	10.9	6.6	8.0	165	136	82
Basin-wide percent of average					**151**	**96**	**63**

-M = Missing data.
 *   = Analysis may not provide a valid measure of conditions.
N/A = No average available.

The SNOW WATER EQUIVALENT represents the depth of water in the snowpack, if the snowpack were melted, expressed in inches.

Contact your state water supply staff for assistance.

Reference period for average conditions is 1971-2000.

Provisional data, subject to revision.